

Application No. 10/602,755
Art Unit 1713, Examiner Hu
Docket No. CL-1459 US DIV
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Remarks: General

A petition under 37 CFR §1.136 for a three-month extension of time to respond to the Examiner's April 21, 2005 action was enclosed with the paper filed on October 20, 2005.

By Applicant's calculation, no fee is due by reason of this amendment to the claims. If any fee other than or in addition to the extension fee mentioned specifically above is required to authorize or obtain consideration of this response, please charge such fee to Deposit Account No. 04-1928.

Claims 4~8 and 13~15 are now active in the application. Applicant hereby requests reconsideration and further examination of the application in view of the reasons it has set forth below for allowance of the claims.

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Remarks: Detailed Action

I.

In Section 2, the Examiner has objected to the disclosure because of informality in respect of four specified items. The written description has been amended as suggested by the Examiner in respect of those items, and Applicant therefore respectfully requests that the Examiner withdraw this objection.

II.

In Section 3, the Examiner has objected to Claims 4, 13 and 16 because of informality in respect of the manner in which "n >= 1" is presented in the text. Claim 16 has been canceled. As Claims 4 and 13 have been amended in the manner as suggested by the Examiner, Applicant respectfully requests that the Examiner withdraw this objection.

III.

In Section 4, the Examiner has rejected Claim 13 under 35 U.S.C. §112, second paragraph, with respect to the use of the expression "ca.". As shown in *Webster's New Collegiate Dictionary* (G.&C. Merriam Co., Springfield MA, 1981) on pages 151 and 200 (copy attached), the expression "ca." is defined as an abbreviation for the word "circa", which in turn may be defined as "approximately". Claim 13 has therefore been amended to replace the expression "ca." with a suitable word having the same meaning, and, instead of "approximately", the word "about" has been chosen as being a word frequently used in claim drafting. Applicant therefore respectfully requests that the Examiner withdraw the rejection of Claim 13 under 35 U.S.C. §112.

IV.

In Section 7, the Examiner has rejected Claims 4~8 and 13~17 under 35 U.S.C. §103(a) as being unpatentable over WO 98/31716 ("Drysdale") in view of WO 97/23448 ("Howells") and US 4,349,650 ("Krespan"). Claims 16 and 17 have been canceled.

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A.

With respect to Claims 4~8, Drysdale discloses grafting the specified monomer, $\text{CH}_2=\text{CHR}^1\text{R}^2\text{R}^6\text{Y}$, to a polymer such as polyethylene, a polyether or an ethylene copolymer. Drysdale does not teach or suggest grafting the monomer to a polymer prepared from VF_2 (vinylidene fluoride).

Krespan discloses a variety of monomers, all of which are fluorinated on the alpha carbon, and none of which contain an acid or ionized end group. These monomers may, however, be copolymerized with VF_2 .

There would be no motivation for the artisan to replace the monomer utilized in the copolymers of Krespan with the monomer used for grafting in Drysdale because (1) the alpha carbon of the Krespan monomer is fluorinated whereas the alpha carbon of the Drysdale monomer is not; (2) the Drysdale monomers that would, in the Krespan copolymer, give Applicant's claimed polymers have an acid or ionized end group, and Krespan does not incorporate any such monomers in its system; and (3) Drysdale discloses the use of its specified monomer for the purpose of grafting it to a previously-prepared polymer rather than copolymerizing it with another monomer.

Howells does not add anything to overcome the deficiencies of the other two references in this regard because, while it does disclose a method of preparing (fluoroalkylsulfonyl) (fluorosulfonyl) imides and discloses that they may be polymerized, it does not teach or suggest VF_2 as a comonomer.

With respect to comment (1) above concerning the alpha carbon, the Examiner has alleged that $\text{CH}_2=\text{CH}-$ systems are equivalent to $\text{CF}_2=\text{CF}-$ systems, but Applicant respectfully submits that such equivalence is not recognized by the references discussed above.

B.

With respect to Claims 13~15, Drysdale does not teach or suggest a process such as claimed because all manipulations performed in Drysdale are performed on the sulfonyl fluoride end group after the monomer has been grafted to the base polymer (see, e.g., Examples 3, 4, 6, 7, 9 and 10). In Krespan, similarly, such

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manipulations are performed after a copolymer has been prepared (see, e.g., 11/64 to 12/11).

Moreover, there is no disclosure in either of those references of performing the step at a pH of less than about 12.

Howells does not add anything to overcome the deficiencies of the other two references in this regard because it is directed to the preparation of an imide from a sulfonyl fluoride rather than the acid or salt form thereof.

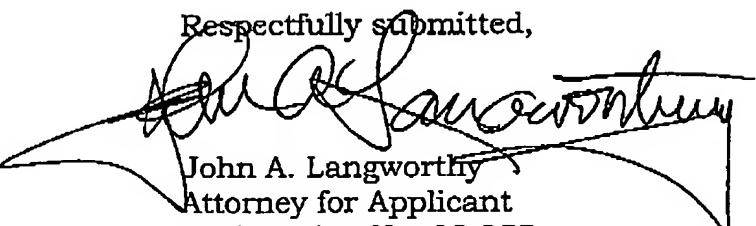
In view of these distinctions between the subject matter of Claims 4~8 and 13~15 and the references discussed above, Applicant respectfully requests that the Examiner withdraw the rejection of those claims under 35 U.S.C. §103(a).

V.

Applicant has reviewed the reference that has been made of record but is not relied on, and submits that it is of no greater pertinence to the claims than the references discussed in detail above.

In view of the foregoing, Applicant submits that all of the Examiner's objections and rejections have been properly traversed, and that the pending claims are in condition for allowance, request for which is hereby respectfully made.

Respectfully submitted,


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